

BYKOV, K.M., akademik, redaktor; RIKKL', A.V., professor, redaktor; RADZI-
VILOVSKAYA, Z.A., redaktor; PEVZNER, R.S., tekhnicheskiiy redaktor.

[Proceedings of the scientific conference on problems of the physi-
ology and pathology of digestion] Nauchnoe soveshchanie po problemam
fiziologii i patologii pishchevarenia, Moscow, 1951. Trudy.
Moskva, Izd-vo Akademii nauk SSSR, 1954. 398 p. (MLRA 8:5)
(Digestion)

AYRAPET'YANTS, E.Sh.; VLADIMIROV, G.Ye.; RIKKL', A.V.; SLOHIM.,A.D.

Productive life of academician K.M. Bykov; 70th anniversary of his
birth. Fiziol. zhur. 42 no.2;135-141 F '56. (MIRA 9:6)

(BIOGRAPHIES,
Bykov, Konstantin, M.)

R
SOLOV'YEV, A.V., otvetstvennyy redaktor; AYRAPETIYANTS, F.Sh., redaktor;
BIRYUKOV, D.A., redaktor; VIADIMIROV, G.Ye., redaktor; KOLOSOV, N.G.,
redaktor; KRASUSKIY, V.K., redaktor; KURTSIN, I.T., redaktor;
MAYOROV, F.P., redaktor; OL'NYANSKAYA, R.P., redaktor; ~~RIKKI, A.V.~~
redaktor; CHERNIGOVSKIY, V.N., redaktor; FEDOROVA-GROT, A.K.,
redaktor; BARSUKOVA, Z.A., redaktor izdatel'stva; KRUGLIKOVA, N.A.,
tekhnicheskiiy redaktor.

[Problems of the physiology of the central nervous system; a collection
celebrating the 70th birthday of Academician K.M.Bykov] Problemy
fiziologii tsentral'noi nervnoi sistemy; sbornik. posviasuchennyi
70-letiiu so dnia rozhdeniia akademika K.M.Bykova. Moskva, 1957.
632 p. (MLRA 10:10)

1. Akademiya nauk SSSR. Institut fiziologii.
(NERVOUS SYSTEM)

Country : USSR
 Category : Human and Animal Physiology. T
 The Nervous System. Vegetative Nervous System.
 Abs. Jour. : Ref Zhur-Biol., No 23, 1958, 106828
 Author : Rykkl', A. V.
 Institut. : AS USSR.
 Title : Changes in Vegetative Functions Connected with
 Eating Activities.
 Orig. Pub. : V sb.: Probl. fiziol. tsentr. nervn. sistemy.
 M.-L., AN SSSR, 1957, 487-493
 Abstract : It was shown on the basis of previous investiga-
 tions that the eating activity has a reflectory
 effect not only on digestive organ activity but
 also other vegetative functions, such as metabo-
 lism, morphologic composition and blood ferment
 activity, blood pressure, respiration and pulse
 rate. The resulting changes are realized at the
 expense of conditioned reflex influences, as well
 as influences derived from gastric and duodenal
 receptor reflexes. Therefore, nutrition distur-

Card: 1/4

121

Country : USSR
 Laboratory : Institute of Animal Physiology. T
 The Nervous System, Vegetative Nervous System.
 Abstr. Source : Exp. Physiol., No 22, 1957, 106226

Author :
 Inst. Inst. :
 Title :

Orig. Pub. :

Abstract :
 (cont) bances and lack of appetite may be attributed to the disruption of digestive apparatus activity as well as of other vegetative organs' activity. Thus, for instance, interoceptive stimulation of various interstitial sections, which is inadequate in terms of time, may reflectively disrupt pancreas, liver, and Pavlov's ventricle lesser curvature secretion in dogs for a period of several days. This phenomenon is regarded as

Page: 2/4

Country : USSR
 Category : Human and Animal Physiology. T
 The Nervous System. Vegetative Nervous System.
 Abs. Jour. : Ref Zhur-Biol., No 23, 1950, 100626

Auth. :
 Institut. :
 Title :

Order. Sub. :

Abstract
 (cont)

the expression of a specific "neurosis" of the digestive organs. The conditional component of the eating act is very strong; it determines the characteristics of vegetative reactions during food intake. The absorption of glucose and of chlorides may serve as an example. In eating, the usual absorption reaction of these substances displays biphasic characteristics: the reflexory reduction of absorption during the

Card: 3/4

100

RIKKL', A.V. (Leningrad)

Report on Anton Fischer's book, "The physiology and experimental
pathology of the liver." Fiziol. zhur. 47 no.10:1329-1330 0 '61.
(MIRA 15:1)

(LIVER) (FISCHER, ANTON)

RIKKL', A.V.

History of the study of the corticovisceral problem in the Institute
of Experimental Medicine of the Academy of Medical Sciences of the
U.S.S.R. Vest. AMN SSSR 16 no.11:17-20 '61. (MIRA 15:2)
(CEREBRAL CORTEX) (CONDITIONED RESPONSE)

RIKKL', Anna Vikent'yevna; VASILEVSKIY, N.N., red.; RULEVA, M.S.,
tekhn.red.

[Nervous regulation of the interaction of vegetative functions]
Nervnaia reguliatsiia vzaimodeistviia vegetativnykh funktsii.
Leningrad, Medgiz, 1961. 199 p. (MIRA 15:5)
(NERVOUS SYSTEM, AUTONOMIC)

XHARAUZOV, H.A., prof., glavnyy red.; MIKHAYLOV, V.P., prof., zamestitel' glavnogo red.; BIRYUKOV, D.A., prof., otv.red.; AVETIKYAN, B.G., doktor biol.nauk, red.; ANICHKOV, H.N., akademik, red.; ANICHKOV, S.V., prof., red.; ARBUZOV, S.Ya., prof., red.; VESELKIN, P.H., prof., red.; VOYNO-YASENETSKIY, M.V., prof., red.; DANILOV, I.V., kand.biol.nauk, red.; ZHABOTINSKIY, Yu.M., prof., red.; ZHINKIN, L.N., prof., red.; IL'IN, V.S., red.; IOFFE, V.I., prof., red.; KARASIK, V.M., prof., red.; KUPALOV, P.S., prof., red.; MANINA, A.A., kand.med.nauk, red.; NEYFAKH, S.A., doktor biol.nauk, red.; RIKKL', A.V., prof., red.; SVETLOV, P.G., prof., red.; SMORODINTSEV, A.A., prof., red.; CHISTOVICH, G.N., doktor med.nauk, red.; BESEDIN, I.K., tekhn. red.

[Yearbook of the Institute of Experimental Medicine of the Academy of Medical Sciences of the U.S.S.R. for 1958] Ezhagodnik za 1958 god. Leningrad, 1959. 538 p. (MIRA 14:1)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut eksperimental'noy meditsiny. 2. Chleny-korrespondenty Akademii meditsinskikh nauk SSSR (for Biryukov, Veselkin, Il'in, Ioffe, Karasik, Svetlov, Smorodintsev). 3. Deystvitel'nyye chleny Akademii meditsinskikh nauk SSSR (for Anichkov, S.V., Kupalov). (MEDICINE, EXPERIMENTAL)

AMBLADZE, K.S.; BIKRO, A.V.; KHARCHENKO, P.D.; SHCHIKO, G.A.

Iosif Sergeevich Rozental'; 1884-1965; obituary. Zhur. vya.
nerv. delat. 16 no. 1:185-187 Ja-F '66 (MIRA 1962)

VORONIN, G.N.; MIKHAL'SKAYA, Z.P.; RIKKL', A.V.

Morphological changes of the pancreas during the development of experimental diabetes. Biul. eksp. biol. i med. 54 no.12:103-105 D'62. (MIRA 16:6)

1. Iz laboratorii obshchey fiziologii imeni K.M.Bykova (zav. prof. A.V.Rikkl') i eksperimental'noy gistologii (zav. - prof. V.P.Mikhaylov) Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad. Predstavlena deystvitel'nyy chlenom AMN SSSR S.V. Anichkovym.

(PANCREAS---DISEASES) (DIABETES)

BC

B-1-1

PROCESSES AND PROPERTIES INDEX

Analysis of lead (accumulated) paste. I. E. Rihbert (*Zavod. Lab.*, 1959, 8, 164—165).—In paste consisting of Pb, PbO, Pb₂O₃, PbO₂, and PbSO₄, the PbO + Pb₂O₃ content is determined by extracting the paste with 75% AcOH in an atm. of CO₂ at room temp. and pptg. PbCrO₄ in the filtrate. The residue is heated with dil. HNO₃ and standard eq. H₂CrO₄, the excess of which is a measure of the amount of PbO present. PbSO₄ is found by extracting the paste with 75% AcOH + 3% H₂O₂, boiling the residue with aq. Na₂CO₃, and pptg. SO₄²⁻ in the filtrate by means of barium chloride. The total Pb is determined by gravimetry. J. J. R.

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 32898-65 EWT(d)/EWP(1)/EED-2 Po-4/Pq-4/Pg-4/Pk-4 IJP(c) BB/GS/GG

ACCESSION NR: AT5004151

S/0000/64/000/000/0168/0177

AUTHOR: Rikko, N. N.

TITLE: Continuous control systems and their simulation

SOURCE: AN SSSR. Institut nauchnoy informatsii. Informatsionnyye sistemy (Information systems). Moscow, 1964, 168-177

TOPIC TAGS: control system, continuous control, control system simulation, nervous system, nerve impulse, respiratory center, computer simulation, Gamma drum machine

ABSTRACT: The author notes that continuous models of control systems have been proposed to explain the functional principles of certain physiological mechanisms, and that the study of these models has been found to be useful in attempts to represent the functions of large and complex control systems for the reworking of considerable bodies of information by means of relatively uniform algorithms or for the solution of a series of interrelated problems of the same type. Of particular interest to the author of the present article are models of such continuous control systems that have certain elements which are discriminated and which possess special properties. As the subject for simulation, the author selected

Card 1/4

L 32898-65

ACCESSION NR: AT5004151

the functional mechanism of the respiratory center of the higher animals. The first section of the article, therefore, deals with the problem of the simulation of respiratory center functions (in the case of mammals) on a digital computer. The necessary elementary information concerning the manner in which the respiratory center actually functions in nature is presented in an introductory statement. Histologically, the author notes, the respiratory center has been little studied, but apparently consists of a large number of small cells. Located among them are large inspiratory cells with a well-developed dendrite system and axons which form the phrenic nerve. This nerve subsequently reaches the phrenic nucleus which controls the respiratory act. It is natural to suppose that these cells collect, as it were, the excitation from the small cells and form volleys which trigger the respiratory mechanisms. The respiratory center model described in the article takes into account these functional peculiarities and makes it possible to estimate the effect of various changes in the character of the afferent activity on the rhythmical volley activity of the respiratory center. In order to simulate the functioning of the respiratory center, the author makes use of so-called continuous models of control systems. In these models, the active tissues are represented in the form of an imaginary tissue, i.e., some continuous medium capable of excitation. The author calls attention to the fact

Card 2/4

L 32898-65

ACCESSION NR: AT5004151

that the choice of a model of this type is due to the circumstance that the normal work of the respiratory center is provided by a system of a very large number of cells. It is assumed that the cells (points) of the medium possess refractoriness; i.e., for a definite refractory period R after excitation they lose the ability to be excited. It is further assumed that they possess spontaneous activity; i.e., with time T after the last excitation the cell is again excited spontaneously. The value T is called the "period of spontaneous activity". The time which elapses from the moment of the last excitation is referred to as the "phase of the cell". If the phase does not exceed the value R , the cell loses its ability to be excited, i.e., it is refractory. The digital model of the respiratory center is a plane realization of the continuous medium, with the assumption that this medium consists of cells of two types. Type-A cells are the analogs of the small cells of the reticular formation, having only close connections, spontaneous activity, the ability to conduct excitations and transmit them to the large cells. In turn, these large cells (type-B cells) have long axons which form the outgoing nerve trunk. An external pulsation, simulating respiratory afferent activity, may reach this continuous medium. The cells of type B are substantially more complex than those of type A, requiring for their excitation the excitation of a large number of the type-A cells connected with them. The threshold of excitation depends in turn on the character of the work of the cell. The model, based on this representation, is

Card 3/4

L 32898-65

ACCESSION NR: AT5004151

described in full in the article, along with the program and the experimental results obtained. The program was written for the "Gamma-Drum" machine of the Bull firm. Pertinent information regarding this computer is also given in the article. With the help of the digital model described, the author succeeded in obtaining a stable self-adjusting system operating in a certain sense with synchronized volleys. The form and configuration of the volleys are controlled by a small number of independent parameters. For a large area of parameter variation the operational type is preserved, while a drawing together of the parameters of different type-B cells draws together their volleys in terms of length, configuration and operating stability. Orig. art. has: 3 figures, and 4 formulas.

ASSOCIATION: None

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: IE, LS

NO REF SOV: 003

OTHER: 000

Card 4/4

LYAPUNOV, A.A., red.; LUPANOV, O.B., red.; RIKKO, N.N., red.;
MOSKATOV, G.K., red.; IOVLEVA, N.A., tekhn. red.

[Collection of translations on cybernetics] Kiberneticheski
sbornik; sbornik perevodov. Moskva, Izd-vo inostr. lit-ry.
No.4. 1962. 255 p.

(MIRA 16:4)

(Cybernetics)

А. Ф. Халдеев

Система сканирования на магнитных носителях

И. И. Гурьев,
И. С. Леонов,
И. А. Цифров

Магнитное оптическое запоминающее устройство с магнитным управлением

А. Е. Леонов,
И. Г. Жеребков,
Г. И. Ефимов

Дискретно-аналоговый преобразователь на магнитных носителях с активным ферритовым запоминающим устройством

И. В. Трубинов

Минимизирующее устройство системы сканирования на магнитной ленте

12 июля

(с 10 до 16 часов)

И. А. Анух,
И. И. Рязань

Принципы построения магнитной ферритовой памяти

И

Ю. А. Мазунов

С. М. Пастухов

Арифметическое устройство ферритовой цифровой памяти

Ю. А. Мазунов

Вычислительное устройство ферритовой магнитной цифровой памяти ЛЗМ-1

Г. И. Клейменов

О выборе параметров в вычислительной машине ЛЗМ-1

12 июля

(с 18 до 22 часов)

В. В. Анисимов

Подготовка информации для программирования устройств металлорезающих станков

И. Д. Каневский

Некоторые вопросы использования магнитных вычислительных машин в системах связи

Г. И. Клейменов

Опыт решения задачи по определению плотности энергетической нагрузки в кристаллах на машине ЛЗМ-1

67

report submitted for the Centennial Meeting of the Scientific Technological Society of
Radio Engineering and Electrical Communications in A. S. Popov (VSEVE), Moscow,
8-12 June, 1959

AVRAAMOV, I.S., inzh.; RIKKONEN, V.M., inzh.

Graphical method of estimating transient processes in nonlinear electromechanical systems with variable magnetic flux. Izv.vys. ucheb.zav.; Chern.-met. 2 no.5:121-134 My '59.
(MIRA 12:9)

1. Tomskiy politekhnicheskii institut.
(Transients(Electricity))
(Metalworking machinery--Electric driving)

RIKONEN, V.M., kand. tekhn. nauk; MEL'NIKOV, Yu.S., inzh.

Electrical heating of a moving wire. Elektrotehnika 36 no.5:
53-55 My '65. (MIRA 18:5)

RIKKONEN, V. M.

RIKKONEN, V. M. "The Effect of Parameters on Autooscillations in an Electromechanical System." Min Higher Education USSR. Tomsk Order of Labor Red Banner Polytechnic Inst imeni S. M. Kirov. Tomsk, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 19, 1956.

RIKHOEN, V.M., Acad. techn. nauk; MEL'NIKOV, Yu.S., inzh.

Calculation of the parameters of electrical annealing of a moving wire. Elektrotehnika 35 no.9:32-35 3 1991.

(MIRA 17:11)

RIKLEFS, Ye.E.

Materials on the introduction of lowering ornamental plants in the
Karaganda Botanical Garden. Trudy Inst.bot.AN Kazakh.SSR 14:144-
151 '62.

(MIRA 16:4)

(Karaganda--Flowers)

RIKLEFS, Ye.E.

Roses in the Karaganda Botanical Garden. Trudy Inst.bot.AN Kazakh.
SSR 17:40-59 '63. (MIRA 17:5)

RIELEFS, Ye.E.

Introduction of flowering and ornamental plants in the Karaganda
Botanical Garden. Trudy Karag. bot. sada 1:65-73 '60.

(MIRA 15:1)

(Karaganda Province--Plants, Ornamental)

RIKLEFS, Ye.E.

Using perennials in floral decoration of Karaganda in order to
prolong the period of blooming. Trudy Karag. bot. sada 1:74-80
'60. (MIRA 15:1)
(Karaganda--Floral decoration)

BC

1ST AND 2ND ORDER

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDER

B-2-5

Preparation of furfuraldehyde from flax refuse.
N. N. Onlov and S. G. RIKLES (J. Appl. Chem. Russ.,
1953, 6, 910-914). The material reported in the
preliminary treatment of flax yields 9% of furfuraldehyde
on heating during 7 hr. at 160° with 0.1N-H₂SO₄ or
HCl; addition of NaCl to 5% reduces the time neces-
sary to 3-4 hr. The yields obtained, using a no. of
other solutions, under similar conditions are: H₂O
2.8, 15% NaCl 4, 1% H₃PO₄ 7.5, 0.1N-H₂C₂O₄ 4.56,
and 0.2N-NaHCO₃ 7-7.9%.
R. T.

COMMON ELEMENTS

COMMON VARIANTS

ASM-11A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDER

3RD AND 4TH ORDER

PROCESSES AND PROPERTIES INDEX

Preparation of *o*-nitrophenetole from *o*-nitrochlorobenzene. S. G. Riklis. *Org. Chem. Ind.* (U. S. S. R.) 7, 1547 (1940). Extensive exptl. data on the prepn. of *o*-O₂NC₆H₄OEt (I) from *o*-O₂NC₆H₄Cl (II) by known methods are tabulated and discussed. The reduction of the NO₂ group in II with the formation of resinous products can be practically eliminated and I yields increased up to 87% by autoclaving 60 hrs. at 90° 120 g. II, 750 ml. of 93% alc. and 87 ml. of 2 N alc. NaOH and adding at intervals a total of 452 ml. of alc. NaOH. At higher concns. and in an open reaction app. (refluxing) the reaction gives inferior results. The resulting I can be purified by vacuum distn. Cf. Brit. pat. 239,320 (C. A. 20, 1986) and U. S. pat. 1,875,916 (C. A. 27, 102). Chas. Blanc

ASAC-3LA METALLURGICAL LITERATURE CLASSIFICATION

13041 519-83194

140000 44

150000 44

160000 44

170000 44

180000 44

190000 44

200000 44

210000 44

220000 44

230000 44

240000 44

250000 44

260000 44

270000 44

280000 44

290000 44

300000 44

310000 44

320000 44

330000 44

340000 44

350000 44

360000 44

370000 44

380000 44

390000 44

400000 44

410000 44

420000 44

430000 44

440000 44

450000 44

460000 44

470000 44

480000 44

490000 44

500000 44

510000 44

520000 44

530000 44

540000 44

550000 44

560000 44

570000 44

580000 44

590000 44

600000 44

610000 44

620000 44

630000 44

640000 44

650000 44

660000 44

670000 44

680000 44

690000 44

700000 44

710000 44

720000 44

730000 44

740000 44

750000 44

760000 44

770000 44

780000 44

790000 44

800000 44

810000 44

820000 44

830000 44

840000 44

850000 44

860000 44

870000 44

880000 44

890000 44

900000 44

910000 44

920000 44

930000 44

940000 44

950000 44

960000 44

970000 44

980000 44

990000 44

1000000 44

NIKULIS, J. G.

"The Kinetics of the Reaction of the Formation of o- and p-Nitrophenetole from
o- and p-Nitro-chlorobenzene," Zhur. Obshch. Khim., 15, No.s 9-10, 1945.
Mer. Lab. Organic Dyes & By-Products, Kiev Industrial Inst., -1941-.

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
COMMON ELEMENTS													COMMON VARIABLES INDEX																																						
OPEN													MATERIALS INDEX													17 Preparation of sulfosalicylic acid. S. G. Rikhs and M. P. Vysotskaya (Kiev Polytech. Inst.). <i>Farmatsiya</i> 9, No. 6, 18-23(1946).—Monosulfonation of salicylic acid 1 with 90% H_2SO_4, 3 parts takes 1 hr.; 85% H_2SO_4 needs 4 hrs. At 15-16° monosulfosalicylic acid (1) 127 dissolves in water 100 parts. Soly. of 1 in aq. H_2SO_4 decreases from 85% in 10.6 to 1.36% in 49.9% H_2SO_4. The concn. of 1 in aq. or acid soln. may be detd. colorimetrically with $FeCl_3$. Julian P. Smith																									
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			
FROM DIVISION																										E-27																									
F. GROUPS													J. LETTERS													AUTHOR INDEX																									
1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																									

Kinetics of formation of *o*- and *p*-nitroanisole from *o*- and *p*-nitrochlorobenzenes. S. G. Riklis (Kiev Polytech. Inst.). *J. Gen. Chem. (U.S.S.R.)* 17, 1511-1519(1947) (in Russian); cf. *C.A.* 40, 6953¹.—The reactions $\text{NO}_2\text{C}_6\text{H}_4\text{Cl} + \text{NaOMe} \rightarrow \text{NO}_2\text{C}_6\text{H}_4\text{OMe} + \text{NaCl}$ are of the 2nd order, with the following values of the rate const. *k*: in abs. MeOH, *o*- $\text{NO}_2\text{C}_6\text{H}_4\text{Cl}$, temp. 60, 70, 80, 90, 100°, *k*: 0.046, 0.105, 0.267, 0.686, 1.46; *p*- $\text{NO}_2\text{C}_6\text{H}_4\text{Cl}$, same temps., *k*: 0.100, 0.244, 0.676, 1.63, 3.80; at 80°, in MeOH-H₂O mixts., *o*-compd., H₂O 0.00, 2.22, 8.88, 17.20 moles/l., *k*: 0.267, 0.250, 0.214, 0.200; *p*-compd., H₂O 0.00, 8.69, 17.2, *k*: 0.675, 0.655, 0.670. That the reaction is mainly methylation, without appreciable side reactions, is demonstrated by the near equality of the amts. of NaOMe reacted and of NaCl formed; the slight deviations are due mainly to the formation of some nitrophenolate as a result of the presence of some NaOH and the reaction $\text{NO}_2\text{C}_6\text{H}_4\text{OMe} + \text{NaOH} \rightarrow \text{NO}_2\text{C}_6\text{H}_4\text{ONa} + \text{MeOH}$. In the temp. interval studied, the rates of methylation of $\text{NO}_2\text{C}_6\text{H}_4\text{Cl}$ in abs. MeOH are lower than the rates of ethylation in abs. EtOH (*C.A.* 40, 6953²). Thus, at 60, 70, 80, 90, 100°, for the formation of *o*- $\text{NO}_2\text{C}_6\text{H}_4\text{OEt}$, *k*: 0.045, 0.226, 0.677, 1.43, 3.48; for *p*- $\text{NO}_2\text{C}_6\text{H}_4\text{OEt}$, *k*: 0.120, 0.303, 0.780, 1.82, 5.20.

At the same temps., the k of methoxylation of the β -compd. are higher than for the α -compd.; the temp. coeffs. between 60° and 100° are 2.48 and 2.38, resp., as against 2.50 and 2.46 for ethoxylation. Dilin. with H_2O to 45% MeOH decreases k by 20-25% in the case of α -compd., is almost without effect on k of β -compd., whereas in ethoxylation diln. with H_2O lowers k of both α - and β -compds. but more rapidly that of α -compd. At a sufficiently high diln. with H_2O (over 1.5 moles H_2O), for β -compd. and over 4 α -compd.), the rate of ethoxylation falls far below that of the methoxylation of the same isomer, in accord with Blom (C.A. 16, 711) but the reverse is true in abs. alc.

N Thon

USSR :

V. Synthesis of 4,4'-dinitrodiphenyl sulfide. S. G. RIEB and P. A. Yufa. *Ukrain. Khim. Zhur.* 20, 71-2 (1954) (in Russian). 4,4'-Dinitrodiphenyl sulfide (I), of value for synthesis of 4,4'-dinitrodiphenyl sulfone and its deriv., can be produced in yield greater than that obtained by Cabel and A. L. Shpanion (*C.A.* 34, 6241) if the Na_2S used contains some Na_2S_2 . 4-Nitrochlorobenzene (31.5 g.) was dissolved by heating in 250 ml. of EtOH and a soln. of 24 g. cryst. Na_2S and 0.84 g. S in 72 ml. water added dropwise during 1 hr. to the gently boiling soln. After heating on a boiling water bath for 6 hrs., the ppt. was filtered off, washed with EtOH and hot water, and dried to give 52-4% I, m. 150-7° (from glacial AcOH). Chayton F. Holowny

RIKLIS, S. G.

Chem

Synthesis and properties of Sulfamethine—new anti-tubercular preparation. L. M. Kul'berg, S. G. Riklis, P. A. Yufa, and R. P. Vel'tman (Ukrain. Tuberculosis Sci. Research Inst., Kiev). *Zhur. Obshchei Khim.* 26, 168-72; *J. Gen. Chem. U.S.S.R.* 26, 175-8 (1950) (Engl. translation); cf. *C.A.* 49, 10876d.—(p -H₂NC₆H₄)₂SO₂ (I) (20 g.) in 300 ml. warm EtOH treated with 28 g. p -Me₂NC₆H₄CHO in 120 ml. EtOH and the hot soln. treated with 18 ml. concd. H₂SO₄ added dropwise gave an orange ppt. which after washing with EtOH and satd. NaHCO₃ gave 38-40 g. Sulfamethine [(p -Me₂NC₆H₄)CH:NC₆H₄SO₂]₂ (II), yellow, decomp. 276-80°. It retards the growth of tubercular organisms. Refluxing an alc. soln. of I and p -Me₂NC₆H₄CHO yields the monomeric azomethine which is inactive against tubercular organisms and m. 230-1°. Treatment of this in EtOH with H₂SO₄ readily yields II. Both are hydrolyzable by 0.1N HCl at room temp. and the extent of hydrolysis detd. by detn. of I colorimetrically by coupling with H acid. In neutral aq. medium the hydrolysis is slow but appreciable, the rate increasing rapidly with time. While the monomer of II is not affected by NaHSO₃, II turns orange. The x-ray pattern is shown for II and its monomer.

G. M. Kosolapoff

RIKMANI, E. A.

"Pozdnie sarmaty Dnestrovsko-Dunayskogo nakhodch'ya."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

KRISHTAL, M.A.; RIKMAN, E.P.

Distribution of elements in a complex iron-base alloy. Fiz.
met. i metalloved. 9 no.5:790-792 My '60. (MIRA 14:4)

1. Tul'skiy mekhanicheskiy institut.
(Iron alloys--Metallography)

20372

S/058/61/000/003/014/027

A001/A001

187500

1418, 1145

Translation from: Referativnyy zhurnal, Fizika, 1961, No. 3, p. 320, # 3E319

AUTHOR: Rikman, E. P.

TITLE: Investigation of Diffusion Layer by the Local Spectral Analysis Method

PERIODICAL: "Sb. tr. Tul'sk. mekhan. in-ta", 1960, No. 15, pp. 120-126

TEXT: The method of local spectral analysis with a "point-like" and "linear" source was employed to study concentration distribution curves of diffusing elements in a diffusion layer with the purpose of calculating diffusion coefficients. When the "point" source was used, concentration curves were plotted on the basis of spectra of points situated along diffusion direction and spaced at 0.01 mm from each other. When a "linear" source was used, whose trail on the specimen coincided with diffusion direction, the concentration curve was plotted directly from one spectrum. Results obtained with the "linear" source are cruder than those obtained with the "point" source. The method was employed to study diffusion of Ni in system Ni-Fe at 1,100°C and diffusion of Mo in systems Fe-Mo

Card 1/2

20372

S/058/61/000/003/014/027

A001/A001

Investigation of Diffusion Layer by the Local Spectral Analysis Method

and Mo-Fe + 5% Cr at 1,200°C. The following values were obtained: diffusion
coefficient of Ni in Fe, $D_{Ni}^{Fe} = 1.3 \times 10^{-11}$; $D_{Mo}^{Fe} = 9.1 \times 10^{-11}$; $D_{Mo}^{Fe+5\%Cr} =$
 $2.9 \times 10^{-11} \text{ cm}^2/\text{sec}.$

I. Marchukova

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

RIKMAN, E.P.

Local analysis of heat-resistant alloys. Nauch.trudy Tul.gor.
inst. no.3:121-130 '61. (MIRA 16:4)
(Heat-resistant alloys--Analysis)

MIRKIN, I.L., doktor tekhn. nauk prof.; RIKMAN, E.P., kand. tekhn. nauk

Using local spectrum analysis to investigate the distribution
of elements in alloys. Trudy TMI no.11:5-19 '59. (MIRA 12:12)

(Alloys--Spectra) (Diffusion)

SOV/48-23-9-55/57

24(7)

AUTHORS:

Mirkin, I. L., Rikman, E. P.

TITLE:

On Some Particular Features of the Local Analysis of Complex Alloys

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1167 - 1169 (USSR)

ABSTRACT:

The distribution of chemical elements over the structural components of alloys, the grains of solid solutions and their boundaries, in diffusion layers, and in welding seams is mentioned in the introduction as being a problem of the investigation of alloys, and it is said that local spectroscopic analysis makes it possible to solve this problem. Reference is then made to an earlier paper by the two authors (Ref 1), in which the sample was connected as cathode and the high-frequency alternating current was rectified by keno-trons. Special investigations showed that a blackening of the spectral lines is caused only by the vapors conveyed from the central zone of the crater into the spark space. The quantity of evaporated substance thus analyzed is not greater than $(1 - 2) \cdot 10^{-8}$ g, because this central zone has a dia-

Card 1/3

On Some Particular Features of the Local Analysis
of Complex Alloys

SOV/48-23-9-55/57

meter of only 0.08 mm. In this kind of analysis the discharge is localized by coating the electrode with an insulator (polythene). A microscope is used for the purpose of finding a suitable zone and for its metallographical checking. Figure 1 shows a calibration curve for the determination of the local magnesium content in cast iron of great strength in the micro-spectroscopic analysis, and the problem of the influence exercised by the structure of the alloy on the results is broached. Two possible causes of this effect are mentioned: 1) The non-uniform distribution of elements over the structural components. 2) The different conditions of evaporation of the elements from the various phases of the alloys. In high-frequency discharges the latter is of no importance as shown by experiments. The non-uniform distribution of elements may be investigated by the above-described localized spectroscopic analysis and, in conclusion, several examples of such investigations are discussed. In this connection the distribution of magnesium in especially strong cast iron and in magnesium-containing cast iron, and quantitative analyses of refractory alloys are dealt with.

Card 2/3

On Some Particular Features of the Local Analysis
of-Complex Alloys

SOV/48-23-9-55/57

Special samples were used for the investigation of the diffusion layers, consisting of metal sources and metal solvent. The curve shown by figure 2, which describes the distribution of molybdenum in its diffusion in pure iron, made it possible to calculate the diffusion coefficients. The diffusion of Mo in pure Fe was investigated by means of the tracer method. There are 2 figures, 2 tables, and 4 Soviet references.

ASSOCIATION: Tul'skiy mekhanicheskiy institut (Tula Mechanics Institute)

Card 3/3

KRISHTAL, M.A.; RIKMAN, E.P.; ZHUKOV, A.A.

Intercrystalline segregation of silicon and magnesium in cast iron
with spheroidal graphite.
(Cast iron--Metallography)

R. L.
... ..
... ..
... ..

PHASE I BOOK EXPLOITATION

SOV/3790

. Tula. Mekhanicheskii institut

Vliyaniye obrabotki na strukturu i svoystva metalla; sbornik statey.
(The Effect of Machining on the Structure and Properties of Metals;
Collection of Articles), Moscow, Oborongiz, 1959. 76 p. (Series:
Its: Trudy, vyp. 11) No. of copies printed not given.

Ed.: M.A. Krishtal, Candidate of Technical Sciences, Docent. Ed. of Publishing
House: S.I. Vinogradskaya. Tech. Ed.: V.I. Oreshkina. Editorial Board:
S.S. Petrukhin (Chairman) and Resp. Ed. of Series, Director of the Institute,
Candidate of Technical Sciences, Docent; A.G. Gorst, Doctor of Chemical Sciences,
Professor; A.I. Lampsi, Doctor of Technical Sciences, Professor (deceased);
M.A. Mamontov, Doctor of Technical Sciences, Professor; A.N. Ter-Mkrtich'yan,
Candidate of Technical Sciences, Docent; V.D. Rozhkovskiy, Candidate of Physics
and Mathematics, Docent; D.G. Solomentsev, Candidate of Economic Sciences,
Docent; A.Ya. Shaydenko, Candidate of Technical Sciences, Docent (Scientific
Secretary)

PURPOSE: This collection of articles is intended for scientific and technical
personnel in the metalworking industry.

Card 1/4

The Effect of Machining (Cont.)

SOV/3790

- . COVERAGE: The articles were prepared by members of the Department of Physical Metallurgy, Tula Mechanical Institute, in conjunction with members of other departments and industrial personnel. The book deals with the effect of various conditions of heat treatment and mechanical treatment (shot peening and coining) on the structure and properties of ferrous metals. Proper conditions are indicated for annealing malleable iron and extending the life of machine parts under cyclic-impact loads. New data are given on working-out a method of internal burnishing with the use of mandrels. In addition, results of an investigation of the distribution of elements in alloys are presented. References, chiefly Soviet, accompany individual articles. No personalities are mentioned.

TABLE OF CONTENTS:

Preface

3

Mirkin, I.L. [Doctor of Technical Sciences, Professor] and
E.P. Rikman [Candidate of Technical Sciences]. Applica-
tion of Local Spectral Analysis to the Study of the
Distribution of Elements in Alloys

5

Card 2/4

The Effect of Machining (Cont.)

SOV/3790

Glebov, A.D. [Engineer]. Effect of Various Methods of Work
Hardening on the Cyclic-Impact Strength of Steel

20

Extensive experimental data are given on the testing of steel of various types for durability under repeated impact. Treatment suitable for increasing the durability of hardened and tempered parts 10-15 times is discussed. One such effective method is shown to be coining.

Mirkin, I.L., and T.A. Sirenko, [Engineer]. Investigation of the
Surface Layer of Steel Formed by Internal Burnishing

32

This and the following article deal with the mechanical properties of the surface layer obtained under various conditions of burnishing. Extent of plastic deformation is determined, and diagrams of residual stresses along the cross section of specimens treated with mandrels are constructed. The effects of magnitude of interference and of the material of the mandrel are discussed.

Card 3/4

The Effect of Machining (Cont.)

SOV/3790

Mirkin, I.L., and T.A. Sizenko. Investigation of the Effect of Microstructure and Process Parameters on the Condition of the Surface Layer of Burnished Holes in Steel

46

Khrishtal, M.A. [Candidate of Technical Sciences, Docent], I.P. Fominykh [Candidate of Technical Sciences, Docent], B.F. Bobrov [Candidate of Technical Sciences, Docent], and A.Ya. Tseytlin [Engineer]. Peculiarities in Surface Structure as a Factor in the Machinability of Decarburized Malleable-Iron Castings

66

The authors discuss a specific surface defect in ferritic malleable-iron fittings and sheets, the presence of which impairs machinability. The nature of defects of this type is clarified, and methods of annealing so as to preclude defects are indicated.

AVAILABLE: Library of Congress (TS1.T8)

VK/mas
6-17-60

Card 4/4

RIKMAN, E P

5(0)

AUTHOR:

None Given

SOV/32-25-3-61/62

TITLE:

New Books (Novyye knigi). Author's Abstracts of
Dissertations (Avtoreferaty dissertatsiy)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, p 382 (USSR)

ABSTRACT:

I. V. Prokof'yeva: Development of Methods for the Separation
and Determination of Rhodium and Iridium (Institut obshchey
i neorganicheskoy khimii AN SSSR) (Institute of General and
Inorganic Chemistry AS USSR)

V. S. Baykov: Development of New Apparatus for the Determination
of Gases in Metals and for the Investigation of the Behavior
of Hydrogen in the Course of the Electrical Melting Process of
Steel (Institut chernoy metallurgii Akademii nauk USSR,
Dnepropetrovsk) (Institute of Ferrous Metallurgy of the Academy
Sciences, UkrSSR, Dnepropetrovsk)

E. P. Rikman: Local Spectrum Analysis and Its Use in Metallurgy
(Tul'skiy mekhanicheskiy institut) (Tula Mechanical Institute)

L. P. Malyavkin: Development and Investigation of the Photo-
electrical Plant for Emission Spectrum Analysis (Fizicheskii
institut im. P. N. Lebedeva Akademii nauk SSSR) (Physics
Institute imeni P. N. Lebedev of the Academy of Sciences, USSR)

Card 1/2

New Books. Author's Abstracts of Dissertations

SOV/32-25-3-61/62

Kustanovich, I. M.: New Methods for Increasing the Velocity and Accuracy of Spectrum Analyses in Ferrous Metallurgy (Moskovskiy universitet im. M. V. Lomonosova) (Moscow University imeni M. V. Lomonosov)

Card 2/2

SOV-128-58-8-6/21

AUTHORS: Krishtal, M.A., Candidate of Technical Sciences, Fominykh,
I.P., Candidate of Technical Sciences, Rikman, E.P., Engineer

TITLE: Peculiarities of Magnesium Distribution During Annealing
of Magnesium-Treated Malleable Iron (Osobennosti raspredeleniya magniya pri otzhige magniyevogo kovyazhnogo zheleza)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 8, pp 10-11 (USSR)

ABSTRACT: The effect of magnesium on the formation of spheroidal graphite has been studied since the discovery of magnesium iron /Ref 1-7/. The purpose was to study the behaviour of manganese in the process of annealing, e.g. the redistribution of magnesium between the metal and the graphite. The study was carried out on specimens of iron of different composition and with the use of a device for localized spectrum analysis (described and illustrated by a diagram). It was stated that silicon, solved in metal, ties magnesium, and hence an increased silicon content in iron entails an increased solubility of the manganese therein. The bond between the atoms of silicon and magnesium impedes the transfer of magnesium from the matrix (austenite) into the graphite during the process of annealing. In low-silicon iron,

Card 1/2

SOV-128-58-8-6/21

Peculiarities of Magnesium Distribution During Annealing of Magnesium-Treated Malleable Iron

the magnesium atoms in the matrix are only weakly bound, and migrate into the graphite even at comparatively low temperatures. There are 2 graphs, 1 diagram and 7 references, 5 of which are Soviet, 1 English and 1 German.

1. Iron alloys--Heat treatment 2. Magnesium--Metallurgical effects

Card 2/2

KRISHTAL, M.A.; FOMINYKH, I.P.; RIKMAN, E.P.

Peculiarities of magnesium distribution during the annealing process
of malleable magnesium cast iron. Lit. proizv. no.8:10-11 Ag '58.
(MIRA 11:9)

(Cupola furnaces) (Cast iron)

MIRKIN, I.L.; RIKMAN, E.P.

Distribution of magnesium in high-strength cast iron. Lit.proizv.
no.12:13-16 D '57. (MIRA 11:1)
(Iron-magnesium alloys--Metallography)

32-11-28/60

AUTHORS: Mirkin, I.L., Rikman, E.P.

TITLE: On a Method of Microspectral Analysis (Ob odnom metode mikrospektral'nogo analiza)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp.1338-1341 (USSR)

ABSTRACT: The methods of local analysis by volume hitherto published are described as being either too complicated (1) or having a limited localization (2,3), or being restricted by certain conditions (4). In contrast to the said publications a new method of local analysis is suggested here by means of which the "punctuating" rectified highfrequency current is used. The necessary highfrequency current was in this case taken from the generator "ПГ-39" and was rectified by the kenotron "2U, 2C". The sample was introduced as a cathode of the arc, while a steel needle served as anode which, according to the task to be performed, was adjusted either parallel or vertical to the slit of the spectrograph. The spark was focused "almost sharply" on the slit of the spectrograph "ПГ-22" by the lens "ПГ-197" with an enlargement 2. Films of the type "Spektral'nyye I" were used. A further improvement of this method consisted in the selection of the part of the sample to be subjected to local analysis being rendered more simple. The metallographical micro-

Card 1/2

RIKMAN E.P.

MSR/Analysis of Inorganic Substances.

G-2

Abs Jour. Ref Zhur-Khimiya, No 6, 1957, 19534.

Author : I. L. Mirkin, E. P. Rikman

Inst : -

Title : Determination of Magnesium in Pig Iron by the
Method of Local Analysis.

Orig Pub: Zavod. Laboratoriya, 1956, 22, No 3, 930 - 936.

Abstract: In order to determine Mg in small volumes of pig iron, the spectrum is excited by a high frequency spark from a generator IS-39 produced by a current of 0.01 a and a constant electrode in the shape of a Cu edge 4 mm high. The obtained linear source of light is sharply projected on the slit of the medium spectrograph. The spectra are

Card 1/3

- 17 -

RIKMAN, EP

18

4
4E2C

Magnesium determination in cast iron by the localized analysis method. I. L. Mirkin and E. P. Rikman (Mech. Inst., Tula) Zavodskaya Lab., 22, 931-6 (1958).—The Mg in cast iron, added to improve the quality by modifying the form of graphite deposit in iron, is not uniformly distributed, and an av. Mg content detn. is less valuable than its local content in small vols. of the product. For the localized analysis a spectrum analytical method was used with a high-frequency spark, with 0.01 amp. current. As a preliminary test the uniformity of C distribution was tested in the same way, and was found to be very uniform. A Mg-contg. cast iron with an av. Mg content of 0.1% showed wide variations in readings taken at a distance of 0.05 mm. apart (0.036-0.28%). A microscopic investigation showed 1-5 graphite inclusions in 0.1 sq. mm. areas, with an av. of 2 inclusions, while a total absence of graphite in such an area was extremely rare. The apparent nonuniformity of the Mg content must be attributed to the incidence of the graphite present on the surface, which was about 8% of the area, but varied between 3 and 40%. Addnl. improvements in the method of local spectrum analysis must be developed before using it for a true Mg distribution curve in the metal.

W. M. Sternberg

76

KRISTAL, S.A., kandidat tekhnicheskikh nauk; RIZMAN, E. ., inzhener.

Distribution of magnesium in iron alloys. Lit. proizv. no. 2-25-26
31 '52. (MIA 10:3)

(Iron alloys--Metallurgy)
(Magnesium)

RIKMAN, E. P.

27
 Magnesium distribution in iron alloys. M. A. Krištál
 and E. P. Rikman. *Lútsos Prosvědsko*, 1937, No. 7,
 25-8. Distribution of Mg at the boundaries and within
 the grains of nodulized iron contg. C 2.8, Si 1.38, Mn 0.43,
 and Mg 0.030% was detd. by microspectrography, placing
 craters 0.1 mm. in diam. on the grain boundaries and inside
 the grains. The av. Mg content was 0.040% at the bound-
 aries and 0.021% within grains. Locating craters so as
 to include graphite inclusions or to be free from them gave
 0.044% Mg in the first case and 0.021% in the second.
 Grain boundaries apparently plays a considerable part in
 supplying Mg to graphite nodules in annealing.

J. D. Gat

Rikman, E.P.

¹⁸ Magnesium distribution in nodular cast iron. I. I. Mirkin and E. P. Rikman. *Livestvo Proizvodstvo* 1956, No. 12, 22-5. A condensed high-frequency spark was allowed to travel between a sample and a Cu electrode having the shape of a blade producing a crater 0.15 mm. wide and 0.01 mm. deep thus permitting one to det. the Mg concn. in areas of 0.013 sq. mm. by photographing its spectrum. Results so obtained on a Cr steel and plotted as concn. vs. location of craters produced a straight line, but in nodular iron lead to a jagged curve. A comprehensive study of these results combined with a metallographic investigation indicated the presence of Mg throughout the specimen, but its concn. was never equal to the av. Mg content. The av. Mg content was 0.01-0.02% and graphite averaged 0.95-2.2% Mg. I. D. Gat

RG MT

RIKMAN, E.P.
MIRKIN, I.L., doktor tekhnicheskikh nauk; RIKMAN, E.P., inzhener.

Distribution of magnesium in spheroidal graphite cast iron. Lit.
proizv.no.12:22-25 D '56. (MLRA 10:3)
(Cast iron--Metallography)

RIKMAN, E. P.

7491* (Russian.) The Distribution of Magnesium in Nodular Graphite Cast Iron. Raspredelenie magniia v chugune s sharovidnym grafitom; I. L. Mirkin and E. P. Rikman. Litetskoe Proizvodstvo, no. 12, Dec. 1956, p. 24-25. It was found that the Mg is distributed throughout the volume of the metal, but not regularly.

prob m

RIKMAN, E.P.

✓ 001. Determination of magnesium⁷ in cast iron
by the method of local [spectrographic] analysis.
I. L. Mirkin and E. P. Rikman (Tul'sk Mechanical
Inst.). Zavod. Lab., 1966, 22 (8), 930-936. — Results
of experiments on the determination of the distri-
bution of Mg in cast iron by the method of local
spectrographic analysis with high-frequency spark
excitation are described. G. S. SUTU

3

me

RIKMAN, M.A., inzh.

Overhead storage facilities with the use of push conveyors.
Mekh. i avtom. proizv. 17 no.8:35-39 Ag '63. (MIRA 16:10)

BURMISTROV, P.I.; SAMOYLOVICH, S.D.; DEMICHEV, G.M.; KONONOV, V.A.;
EVENCHIK, S.D.; BRODOVSKIY, N.R.; PAVLOV, S.M.; BOEROV,
A.A.; BASKIN, A.I.; SHKOL'NIKOV, S.A.; VASIL'YEV, B.K.;
DRANNIKOV, A.B.; RIKMAN, M.A.; BURAKOV, V.A.; VLADIMIROV,
A.P.; NIKOLAYEVSKIY, G.M.; PETRUSHEV, I.M., red.;
GERASIMOVA, Ye.S., tekhn. red.

[Mechanization of loading, unloading and storing operations in industrial enterprises] Mekhanizatsiia pogruzochno-razgruzochnykh i skladskikh rabot na promyshlennykh predpriyatiyakh. Moskva, Ekonomizdat, 1963. 276 p.
(MIRA 17:2)

KOMASHENKO, A.Kh., inzh.; RIKMAN, M.A., inzh.

Norm indices for piece-good storehouses. Mekh. i avtom. proizv.
19 no.4:50-53 Ap '65. (MIRA 18:6)

L 61411-65 EWT(d)/EWP(h)/EWP(1)

UR/0286/65/000/012/0134/0134

ACCESSION NR: AP5019107

AUTHORS: ^{44 55}Asnin, A. N.; ^{44 55}Yershova, O. I.; ^{44 55}Ivanovskiy, K. Ye.; ^{44 55}Ioffe, F. S.;
^{44 55}Komashenko, A. Kh.; ^{44 55}Kon'kova, T. F.; ^{44 55}Lipovetskiy, V. A.; ^{44 55}Mel'nikov, V. V.;
^{44 55}Mishedchenko, Yu. D.; ^{44 55}Nevorovich, A. M.; ^{44 55}Paris-Revuel'ta, A. A.; ^{44 55}Semenov, V. M.;
^{44 55}Preobrazhenskiy, O. A.; ^{44 55}Rikman, M. A.; ^{44 55}Semenov, B. D.; ^{44 55}Sukhanov, A. I.;
^{44 55}Sheleg, R. G.; ^{44 55}Yaguhinskiy, S. M.

TITLE: Carriage for a drive chain of an overhead thrust conveyor. Class 81, B
 No. 172230

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 134

TOPIC TAGS: overhead conveyor, drive chain, carriage, crane, 4

ABSTRACT: This Author Certificate presents a carriage for a drive chain of an overhead thrust conveyor. The carriage consists of running rollers mounted on an axle fixed to the casing which supports a thrust cam and which is connected to the chain through fastening elements, including a fastening bolt (see Fig. 1 on the Enclosure). To simplify the construction of the carriage, the thrust cam is made in one piece with the fastening bolt, while the casing is made in one piece with the axle. Orig. art. has: 1 diagram.

Card 1/3

L 61411-65

ACCESSION NR: AP5019107

3

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut pod'yemno-transportnogo mashinostroyeniya (All-Union Scientific Research Institute of Hoisting and Conveying Machine Construction) 44 56

SUBMITTED: 12Aug63

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/3

I 61412-65 EWT(d)/EWP(h)/EWP(1)

UR/0286/65/000/012/0134/0135

ACCESSION NR: AP5019108

AUTHORS: Afonin, A. N.; Yershova, G. I.; Ivanovskiy, K. Ye.; Ioffe, P. S.;
Komashenko, A. Kh.; Kon'kova, T. F.; Lipovetskiy, V. A.; Mel'nikov, V. V.;
Mishedchenko, Yu. D.; Neverovich, A. M.; Paris-Revuelet, A. A.; Preobrazhenskiy,
O. A.; Rikman, M. A.; Semenov, B. D.; Semenov, V. M.; Sukhanov, A. I.; Sheleg, Y. S.;
R. G.; Yaguzhinskiy, S. M.

TITLE: Transmission device of an overhead thrust conveyor. Class 81, No. 172231

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 134-135

TOPIC TAGS: overhead conveyor, transmission, crane

ABSTRACT: This Author Certificate presents a transmission device of a suspended thrust conveyor. The device contains spring-supported vanes set in a rotary motion by a star wheel meshing with the drive chain of the conveyor (see Fig. 1 on the Enclosure). To prevent the possibility of wedging the carriage during its transport, the device is provided with a two-armed spring-supported lever. One of the arms serves as a stopper for the carriage, and the other one (provided with a roller) interacts with a circular template fixed on the star wheel. The template has openings for receiving the roller which frees the carriage from the stopper.

Card 1/3

L 61412-65

ACCESSION NR: AP5019108

Orig. art. has: 1 diagram.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut pod'yemno-transportnogo mashinostroyeniya (All-Union Scientific Research Institute of Hoisting and Conveying Machine Construction) 14 15

SUBMITTED: 12Aug63

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/3

D'YACHKOV, V.K., kand. tekhn. nauk; RIKMAN, M.A., inzh.

[Overhead pushing conveyers with automatic guidance;
principles of design and calculation] Podvesnye tolka-
tushchie konveiery s avtomaticheskim adresovaniem; os-
novy proektirovaniia i rascheta. Moskva, Mashinostroenie,
1964. 246 p. (MIRA 17:6)

KONOVALOV, V.S., kand.tekhn.nauk; RIKMAN, M.A., inzh.

Automatic storage at the "Moskabel'" Works. Mekh.i avtom.proizv.
15 no.11:31-34 N '61. (MIRA 14:11)
(Moscow--Cables--Storage)
(Automation)

RIKMAN, R.

Mechanization of operational control, and production regulation accounting with the aid of pushing conveyors. Biul. nauch.inform: trud i zar.plata 3 no.2:21-25 '60.
(MIRA 13:6)

(Conveying machinery) (Factory management)

RIKMAN, V.

Ivan Pavlovich Bardin (biography). Zav.lab. no.4:516-520
'60. (MIRA 13:6)

(Bardin, Ivan Pavlovich, 1883-1960)

RIKMAN, V.

7

Soviet Iron and Steel Industry in Wartime. V. Rikman. (Iron and Coal Trades Review, 1944, vol. 149, Nov. 3, pp. 865-867). A brief account is given of the development of the iron and steel industry in the U.S.S.R. and the movements which were necessary owing to enemy occupation of some of the industrial regions. In electric-furnace steel production before the war the Soviet Union was second only to the United States. Under war-time conditions the making of alloy steel in basic open-hearth furnaces was developed. The preparation of ferro-chromium in ordinary blast-furnaces has also been developed in the Urals.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

RIKMAN, V.

"Problemy Severo-Zapadnoi Metallurgii," by I. Bardin, A. Probst, and V. Rikman,
Akademiya Nauk SSSR, Moscow, 1946

II

RIKMAN, V.

B

26-136. Solution of the Problem of the
Kursk Magnetic Anomaly. V. Rikman.
Metallurg, v. 36, Aug 1947, p. 201-202.
Discovery, development, and future
plans for utilization of a magnetic
iron-ore deposit in the Kursk district
of the U.S.S.R. Reserves of rich ores
containing up to 70% Fe and capable
of being smelted without previous con-
centration are estimated to exceed 340
million tons.

ASU 11.4 METALLURGICAL LITERATURE CLASSIFICATION

RIKMAN, V. A.; REZNIK, L. A.; GRISHPUN, L. V.

Turntable for transporting mine cars from two cages to the
dumper and back. Gor. zhur. no.10:76 0 '62. (MIRA 15:10)

(Mine railroads—Cars)

RIKMAN, V.A.

Russia (1923- U.S.S.R.)

Screw artesian pump VAN-7 Moskva, Ugletekhizdat, 1952. 58 p. (53-15518)

TN325.R85 1952

RIKMAN, V. V.

RIKMAN, V. V.

Rebuilding of Soviet Iron and Steel Industry
Iron and Steel Review, 1945, vol. 1.

The Institute of Metallurgy of the Academy of Sciences of the U.S.S.R. has reorganized its plans for 1943 and 1944 for the rebuilding of the iron and steel industry. An outline of the problems and the methods of solving them is given. New plant and equipment to be standardized as much as possible. Larger open-hearth furnaces (but not exceeding 180-200 tons) are to be built and more mechanical equipment to increase the production per man hour is to be installed.

RIKMA, V. V.

PA 30T56

USSR/Metals, Ferrous
Metallurgy

Feb 1947

"Ferrous Metallurgy in the New Five-Year Plan," V. V.
Rikman, 6 pp

"Nauka i Zhizn'" No 2

A general survey of the restoration and development projected in the new Five-Year Plan for the ferrous metallurgy industry. Rough figures on planned development are given for each productive area. The goal is to place the USSR second in ferrous metal production in the world.

30T56

PA 38/49T79

USSR/Engineering
Metallurgical Plants
Furnaces, Metallurgical

Oct 48

"Progress of Metallurgy in the USSR," V. V.
Ritman, Laureate of Stalin Prize, 6 pp

"Nauka i Zhizn" No 10

Details quantitative development of the Soviet
metallurgical industry since 1928. Gives number
and type of furnaces installed 1942 - 1944, and
number and type to be built or reconstructed
during the postwar Five-Year Plan. During the
next three Five-Year Plans, production will be

38/49T79

USSR/Engineering (Contd)

Oct 48

increased to 50 million tons of cast iron and
50 million tons of steel per year. The
Zaporozhstal' is their most up-to-date factory,
particularly in sheet-rolling production.
(CIA Photo Accession No 412, 413, 414)

38/49T79

RIKMAN, V V

BARDIN, I.P., akademik, otv.red.; STRUMILIN, S.G., akademik, red.; SHEVYAKOV, L.D., akademik, red.; SHCHERBAKOV, D.I., akademik, red.; ANTIPOV, M.I., red.; BELYANCHIKOV, K.P., red.; BRODSKIY, V.B., red.; YEROFEEV, B.N., red.; LIBERMAN, A.Ya., red.; MELESHKIN, S.M., red.; ORLOV, I.V., red.; SMIRNOV-VERIN, S.S., red.; RIKMAN, V.V., red.; SAMARIN, A.M., red.; SLEDZYUK, P.Ye., red.; SKOBNIKOV, M.L., red.; SOKOLOV, G.A., red.; FREY, V.I., red.; KHLEBNIKOV, V.B., red.; SHAPIRO, I.S., red.; SHIRYAYEV, P.A., red.; KUDASHEV, A.I., red.izd-va; KUZ'MIN, I.F., tekhn.red.

[Magnetite ores of the Kustanay Province and their exploitation]
Magnetitovye rudy Kustanaiskoi oblasti i puti ikh ispol'zovaniya.
Otvetsstvennyi red. I.P. Bardin. Moskva, Izd-vo Akad. nauk SSSR, 1958. 489 p. (Zhelezorudnye mestorozhdeniya SSSR). (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany neдр.
(Kustanay Province--Magnetite)

Metallurgy of the USSR (Cont.)

SOV/1497

Dvorin, S. S. Coke and Chemical Industry in the USSR

61

The article gives the geographical location of coke plants and production figures from 1913 to 1955. The rate of development and the chemicals produced are listed.

Tsylev, L.M., and N.K. Leonidov. Development of Blast Furnace Production in USSR

86

The authors describe the increase of cast iron production from 1913 to 1956. As a result of intensive geological exploration new deposits of iron have been discovered in different parts of the USSR (locations given). A table lists the amount of pig iron and manganese produced. The article deals with the following subjects: fuel, design of blast furnaces and auxiliaries, dimensions of blast furnaces, loading arrangements, removal of iron and slag, air-blow installations, air-heating arrangements, gas cleaners, miscellaneous equipment, design features, and the last chapter discusses in detail the means of boosting production of pig iron. There are 21 Soviet references.

Card 3/21

PHASE I BOOK EXPLOITATION

SOV/5323

Bannyy, Nikolay Pavlovich, Viktor Borisovich Brodskiy, Iosif Grigor'yevich Gorelik, Yakov Antonovich Oblomskiy, Vyacheslav Viktorovich Rikman, and Lazar' Nisonovich Roytburd

Ekonomika chernoy metallurgii SSSR (Economics of Ferrous Metallurgy in the USSR) Moscow, Metallurgizdat, 1960. 566 p. Errata slip inserted. 5,700 copies printed.

Eds. (Title page): I. P. Bardin, Academician (Deceased), Ya. A. Oblomskiy, Docent, and V. V. Rikman, Docent. Ed. of Publishing House: Ye. S. Khutorskaya; Tech. Ed.: A. I. Karasev.

PURPOSE : This textbook is intended for students at metallurgical schools of higher education, in divisions of metallurgy at schools of higher technical education, and at engineering and economic schools of higher technical education. It may also be useful to engineering, technical, planning, and economic personnel in scientific, economic, and planning bodies, and in industry.

Card 1/16

Economics of Ferrous Metallurgy (Cont.)

SOV/5323

COVERAGE: The book discusses the role of ferrous metallurgy in the Soviet national economy. Principal laws of the development of ferrous metallurgy, the organization of management, planning principles, and problems of raw-material and fuel-and-power supply bases are examined. Considerable attention is given to the problem of technical progress and its effect on the economics of blast-furnace, steelmaking, and rolling production. The development of ferrous metallurgy in the Soviet Union, capitalist countries, and People's Democracies is briefly described. The introduction and Chs. 13,14, and 15 were written by Ya. A. Oblomskiy, Candidate of Economic Sciences, Docent, Moskovskiy gosudarstvennyy ekonomicheskii institut (Moscow State Institute of Economics); Chs. 1,2,3,4,11 (Sections 3,4, and 5), and 12, by I. G. Gorelik, Candidate of Economic Sciences, Docent, Moskovskiy inzhenerno-ekonomicheskii institut (Moscow Institute of Engineering Economics); Chs. 5,20,21, and 22, by L. N. Roytburd, Doctor of Economic Sciences, Professor, Moscow Institute of Engineering Economics; and Chs. 6,9, 11 (Sections 1 and 2), 18, 19,23, and 24, by N. P. Bannyi, Candidate of Economic Sciences, Docent, Moskovskiy institut stali (Moscow Card 2/16

Economics of Ferrous Metallurgy (Cont.)

SOV/5323

Steel Institute), V. V. Rikman, Candidate of Economic Sciences, Docent, Moscow Steel Institute, and V. B. Brodskiy, Candidate of Economic Sciences, Gosudarstvennyy institut proyektirovaniya metallurgicheskikh zavodov (State Institute for the Design and Planning of Metallurgical Plants), wrote Chs. 7, 8, and 17 and Chs. 10 and 16, respectively. According to the Foreword, the book is based on Soviet and non-Soviet materials. The authors thank the Department of the Economics and Organization of Ferrous Metallurgy Enterprises of the Ural Polytechnic Institute, directed by A. S. Osintsev, Doctor of Economic Sciences, Professor, and L. I. Ulitskiy, Doctor of Economic Sciences, Professor. There are no references.

TABLE OF CONTENTS:

Foreword	8
Introduction	9
1. Present level and prospective development of heavy industry in the USSR	9
Card 3/16	

BANNYY, Nikolay Pavlovich, dotsent, kand.ekonom.nauk; BRODSKIY, Viktor Borisovich, kand.ekonom.nauk; GORELIK, Iosif Grigor'yevich, dotsent, kand.ekonom.nauk; OBLOMSKIY, Yakov Antonovich, dotsent, kand.ekonom.nauk; RIKMAN, Vyacheslav Viktorovich, dotsent, kand.ekonom.nauk; ROYTBURD, Lazar' Nisonovich, prof., doktor ekonom.nauk; BARDIN, I.P., akademik, red. [deceased]; KHUTORSKAYA, Ye.S., red.izd-vs; KARASEV, A.I., tekhn.red.

[Economics of ferrous metallurgy in the U.S.S.R.] Ekonomika chernoi metallurgii SSSR. Pod red. I.P.Bardina, I.A.A.Oblomskogo i V.V.Rikmana. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 566 p.

(MIRA 14:2)

1. Moskovskiy institut stali (for Banny, Rikman).
 2. Gipromet (for Brodskiy).
 3. Moskovskiy inzhenerno-ekonomicheskii institut (for Gorelik, Roytburd).
 4. Moskovskiy gosudarstvennyy ekonomicheskii institut (for Oblomskiy).
- (Iron industry) (Steel industry)

RIKMAN, Ye. A-1

Phosphorescence mechanism of samarium phosphorescent substances studied by the decay of their luminescence. V. LAVSCHIN and E. RIKMAN (Compt. rend. Acad. Sci. U.R.S.S., 1938, 20, 445-448).—The decay of intensity of the yellow and red lines of a CaS-Sm phosphor has been measured at 3 temp. The law of decay was hyperbolic, the decay const. being practically independent of temp. The initial intensity of luminescence was $\propto$ the square of the intensity of the exciting light. Excitation of these phosphors is therefore accompanied by complete separation of the electron from the phosphorescent centres, as in phosphors activated by heavy metals.

J. A. K.

AS - 31.4 METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

BRUTUS, L., kand. ekon. nauk, glav. red.; ANTONS, R., red.; POLISINSKI, U., red.;
KAGANOVITS, I., kand. ekon. nauk, red.; KULL, E., kand. ekon.
nauk, red.; MUREL, R., red.; RANNIK, E., red.; VINT, E.,
kand. ekon. nauk, red.; RIIKOJA, L., red.; KOHU, H., tekhn.
red.

[Economic life of Soviet Estonia, 1940-1960] Nõukogude Eesti
majandus, 1940-1960. Tallinn, Eesti Riiklik Kirjastus,
1960. 478 p. (MIRA 16:6)

1. Eesti NSV Teaduste Akadeemia. Majanduse Instituut. 2. Chlen-
korrespondent AN Estonskoy SSR (for Antons).
(Estonia--Economic conditions)

RIZKOVSAYA, I. A., and YAKUBOVSKAYA, V. I. (USSR)

"The Effect of Aminasin on the Cholesterol Metabolism and the
Content of Protein and Lipoprotein Fractions of Blood."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

RIKOVSKII, I. I.

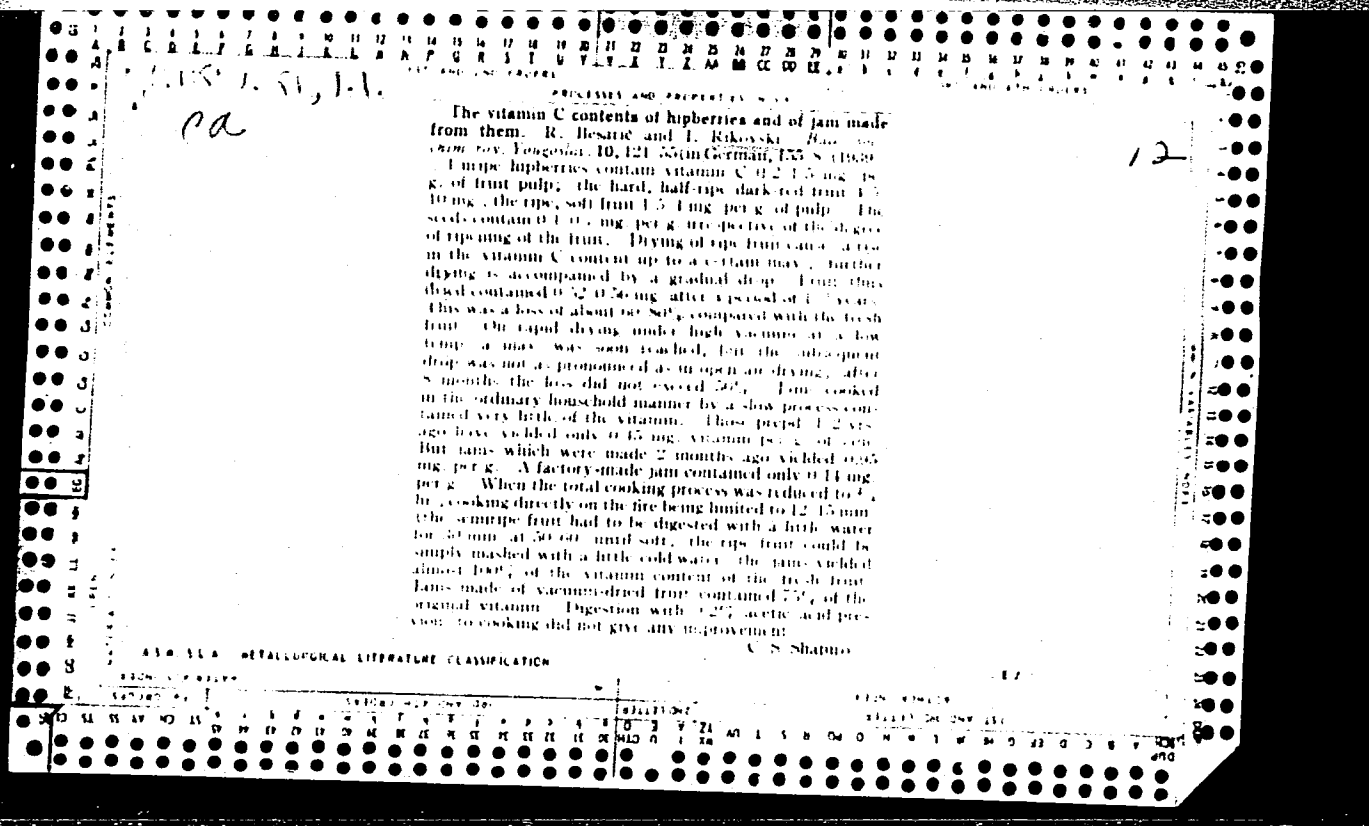
Ryshin, N. A. and Rikovskii, I. I.

Composition Diagrams of Binary Systems of Guaiacol and Amines as Well as Benzylamine and Phenols.

Justus Liebigs Annalen der Chemie, V. 532, 1937, pp. 294-9

Chem. Abst., V. 32, p. 519-9, 1938

Guaiacol (I) appears to exist in 2 modifications, -, stable from 30 to -3.5°, and -, stable below -3.5°. The m.-p. curves are given for the following systems. I-C₆H₆ has a eutectic with 65 mol. % C₆H₆ at 7.5°; I-PhNMe₂, eutectic at 60 mol. % of PhNMe₂ at 16.3°. I-quinoline (II) shows 2 eutectics at 32 and 85 mol. % of II at -0.5° and -28°; piperidine (III) also shows 2 eutectics at 3 and 92 mol. % III at 25.5° and -10.5°. PhNHNH₂ (IV) has 2 eutectics at 35 and 85 mol. % of IV at -5.5° and 9°. I and II form an equimol. comp., m. 12° with III, III.2I, m. 70°; and with IV, I.2IV, m. 16°. PhCH₂OH (V) gives the following compds: V. PhOH, m. 22°, V.3PhOH, m. 15° eutectics at 16 and 35 mol. % of V, at 14.7° and 5.5°; V.o-cresol, m. 7.5°, eutectic at about 31 mol. % V and at about -15°; V.m-cresol, m. 36.4°, eutectic at about 19 mol. % V and about -20°; V.p-cresol, m. -6°, eutectic at about 19 mol. % V at 18°; V.o-ClC₆H₄OH, m. 55°, eutectic at 5 mol. % V and 31%, transformation pt. at 50 mol. % V and 16°; V.I, m. 15.5°, V.3I, m. 32°, eutectic at 8.5 mol. % V and 24°, transformation pt. 50 mol. % V and 15.5°.



LAT AND LONG COORDINATES																																																																													
10																																																																													
RIKOVSKI, I. Melting-point diagrams of binary systems containing trichloroacetic acid. N. A. Pushin and I. I. Rikovski. <i>Bull. soc. chim. Belgrade</i> 11, No. 3/4, 62-71 (1940-46) (Pub. 1947) (in Serbian) (English summary).--Binary mixts. of $\text{CCl}_3\text{CO}_2\text{H}$ (I) and BzH, piperonal, camphor, coumarin, BzOH, malonic acid, stearic acid, phthalic anhydride, and C_6H_6 were studied. Equimol. addn. compds. were found for I and BzH, piperonal, camphor, and possibly also BzOH. Another addn. compd. was observed with piperonal: $3,4\text{-CH}_2\text{O}_2\text{C}_6\text{H}_4\text{CHO} \cdot 2\text{CCl}_3\text{CO}_2\text{H}$. With coumarin, the compd. was $\text{C}_6\text{H}_4\text{CO}_2\text{H} \cdot 2\text{C}_6\text{H}_4\text{CH}=\text{CH} \cdot \text{CO}_2\text{H}$. M. L. Nielsen Structure of ketene dimer. A. T. Blomquist and Franklin H. Baldwin (Cornell Univ., Ithaca, N.Y.). <i>J. Am. Chem. Soc.</i> 70, 29-30 (1948).--Ketene dimer (I) (8.4 g.) in 200 cc. CHCl_3, treated at room temp. with 17.8 g. $(\text{CH}_3\text{CO})_2\text{NH}$ in 700 cc. CHCl_3, the vol. of the mixt. reduced to 400 cc. by distn. at atm. pressure, and the filtrate refluxed 1 hr. with 10 cc. abs. EtOH and 2 drops Et_3N, gives 43% $\text{AcCHBrCO}_2\text{Et}$. Chlorination with 2,4-$\text{Cl}_2\text{C}_6\text{H}_3\text{NHCl}$ in CHCl_3 and reaction with EtOH give 35% $\text{AcCHClCO}_2\text{Et}$. The formation of the α-halo esters indicates the structure for I of $\text{CH}_2\text{C}=\text{O} \cdot \text{CO} \cdot \text{CH}_2$, since the alternative structure $\text{CH}_3\text{CMe} \cdot \text{O} \cdot \text{CO}$ should yield $\text{NCH}_2\text{COCH}_2\text{CO}_2\text{Et}$. In these formulations, it is assumed that Ziegler's reagents (C.A. 37, 5622) halogenate the allyl position in oxygenated unsatd. compds. C. J. W.																																																																													
ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																																													
<table border="1"> <tr> <th colspan="13">REGIONAL COUNTRY</th> <th colspan="13">COUNTRY</th> </tr> <tr> <td colspan="13"> 1 2 3 4 5 6 7 8 9 10 11 12 13 </td> <td colspan="13"> 14 15 16 17 18 19 20 21 22 23 24 25 26 </td> </tr> </table>																										REGIONAL COUNTRY													COUNTRY													1 2 3 4 5 6 7 8 9 10 11 12 13													14 15 16 17 18 19 20 21 22 23 24 25 26												
REGIONAL COUNTRY													COUNTRY																																																																
1 2 3 4 5 6 7 8 9 10 11 12 13													14 15 16 17 18 19 20 21 22 23 24 25 26																																																																

1ST AND 2ND ORDERS		3RD AND 4TH ORDERS	
PROCESSES AND PROPERTIES INDEX			
RIKOVSKI, I. I.		2	
Refractive indexes of mixtures of phenyl isothiocyanate with triethylamine. I. I. Rikovski. <i>Glasnik Khim. Drustva Beograd</i> (Bull. soc. chim. Belgrade) 12, 118-21 (1947).—The n_D at 25° and 50° vary linearly with the compn., indicating absence of compl. formation in the liquid state. N. Thon			
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION			
EDON DIVISION		EDON DIVISION	
EDON DIVISION	EDON DIVISION	EDON DIVISION	EDON DIVISION
EDON DIVISION	EDON DIVISION	EDON DIVISION	EDON DIVISION

2

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX

CA RIKOVSKI, I. I.

Mixtures of camphor with acids, monochloroacetic, and dichloroacetic acids. N. A. Pashin and I. I. Rikovski; *Glasnik Khim. Društva Bosnad* (Bull. soc. chim. Belgrade) 18, 36-7(1948) (English summary).—By the melting diagram, camphor forms an equimolar compd. with CHCl_2COOH , m. congruently at -30° . Eutectic points of the system are -45° , 27 mole % camphor and -41° , 63%. Camphor-AcOH and camphor- $\text{CH}_2\text{ClCO}_2\text{H}$ form no comds.; eutectics -10° , 63% and -30° , 40%, resp.

N. Thon

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

REELIST ONE ONE ONE

Compounds of picric acid with aniline, *p*-toluidine, pyridine, and lutidine, I. I. Kikovsky, *Bull. Serb. Acad. Sci.* 102, 27-34 (1948).—By thermal analysis it is shown that picric acid forms equimol. compds. with HNiPh , m. 180° (decompn.), *p*- $\text{MeC}_6\text{H}_4\text{NH}_2$, m. 175° (decompn.), $\text{C}_6\text{H}_5\text{N}$, m. 164° , and lutidine, m. 140° . B. A. *MS Q*